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EXAMINER	
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ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/896,733	BOWERS, J. ROB	
	Examiner	Art Unit	
	Michael Van Handel	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-13,15-30,38-43 and 45-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 5-13, 15-30, 38-43, 45-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an Amendment filed 4/11/2007. Claims **1, 2, 5-13, 15-30, 38-43, 45-52** are pending. Claims **1, 10, 11, 25, 38** are amended. Claims **3, 4, 14, 31-37, 44** are canceled.

Response to Arguments

1. Applicant's arguments regarding claims **1, 10, 11, 25,** and **38,** filed 4/11/2007, have been fully considered, but they are not persuasive.

Regarding claims **1, 10, 11, 25,** and **38,** the applicant argues that Suzuki fails to teach aggregating a plurality of requests into a single request and sending the single request for a single copy. The applicant specifically argues that, although Suzuki teaches combining a plurality of requests...into a single unified request, Suzuki fails to teach that the single request is for a single copy of the requested data. The examiner respectfully disagrees. As noted by the examiner in the Office Action mailed 1/25/2007, Suzuki discloses input/output units with buffers connected to a plurality of terminals (col. 18, l. 52-54; col. 22, l. 20-24, 30-34; & Figs. 24, 25). Request re-construction units 42 may be provided in each buffer 22 in addition to or instead of the request re-construction unit 42 of the data management unit 4 (col. 18, l. 54-57 & col. 24, l. 19-23). The data management unit 4 has a data management table 41 for indicating a stored position of each data on the multimedia data storage devices 1 and data temporarily stored in each buffer 22 (col. 18, l. 10-16 & col. 22, l. 62-66). When requests for the same data J are issued from multiple

terminals within a prescribed period of time, a request re-construction unit combines the requests for the same data into a single unified request and issues the request to the other server 20 connected by the wide area network 6. The data is transferred from the other server to the requesting buffer(s) (A) and the data management table 41 is updated accordingly (col. 18, l. 26-49, 64-67; col. 19, l. 1-14; & col. 24, l. 18-22).

Suzuki further discloses connecting a plurality of terminals to one buffer 22 and providing a request reconstruction unit 42 in each buffer as a replacement to the request re-construction unit 42 of the data management unit 4 (col. 18, l. 50-58). Requests from multiple terminals requesting the same data within a prescribed period of time are combined into a single unified request (col. 18, l. 26-39). The request for the data is sent to a server 20 connected by a wide area network 6, via a server connection unit 5. The data is then transferred to the buffer, which requested the data (col. 19, l. 1-14). Since the request is for data requested by multiple terminals via a single buffer, the examiner interprets the request as a single request for a single copy of the data. Thus, the examiner maintains that Suzuki meets the limitation of "using the at least one aggregation module, aggregating a plurality of requests into a single request for a single copy of the real-time streaming media and sending the single request for a single copy of the real-time streaming media to the wide area network," as currently claimed.

Further regarding claims **1**, **10**, **11**, **25**, and **38**, the applicant argues that Suzuki fails to teach changing the delivery of the streaming media from a first format to a multicast format. The examiner respectfully disagrees. Firstly, the examiner acknowledges the applicant's statement that, in the Office Action mailed 9/7/2006, the examiner had conceded that "Suzuki does not disclose the aggregation module is configured to dynamically vary delivery of the requested

media as either independent streams or as a multicast depending on traffic load on the network." In a reinterpretation of the Suzuki reference; however, the examiner later concluded that Suzuki met the limitation, as claimed (see Office Action mailed 1/25/2007). Secondly, the examiner agrees that multicast format is not inherent to data reaching multiple input/output units after being sent once from a source and that there is a distinction between broadcasting and multicasting data. In broadcasting, a message is send to everyone on a network, whereas multicasting sends a message to a select list of recipients (see http://www.webopedia.com/TERM/b/broadcast.html). In the case of Suzuki, the select list of recipients is the terminals requesting the same data. Since requested data reaches a select list of requesters after being sent from the source, the examiner interprets this as a multicast format and further interprets the determination made at the data management unit to be a determination to switch from a first format (point-to-point) to a multicast format. Thus, the examiner concludes that Suzuki meets the limitation of "changing the delivery of the streaming media from a first format to a multicast format," as currently claimed.

Regarding claim **13**, the applicant requests that the examiner provide reference supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record. In the Office Action mailed 1/25/2007, the examiner provided Utsumi et al. in support of the Official Notice. Utsumi et al. discloses providing video on demand (VOD) services over the Internet (col. 8, l. 48-54 & col. 9, l. 6-23). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the wide area network (WAN) of Suzuki to be the Internet, such

as that taught by Utsumi et al. in order to provide a more flexible communications platform (Utsumi et al. col. 1, l. 14-23).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims **1, 2, 6, 10, 11, 12, 21, 25, 27, 28, 38-41, 43, 45, 49, 50** are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki.

Referring to claims **1, 10, 11, 25, 27, 28**, and **38-41**, Suzuki discloses a method/computer program product/system for providing real-time streaming media from a wide area network to a plurality of receivers in a system having a plurality of receivers and at least one aggregation module; the method comprising the following acts:

(a) receiving by at least one aggregation module a request for real-time streaming media accessible via a wide area network from each of a plurality of receivers, each request comprising an identifier representative of the receiver making the request (the examiner notes that it is inherent that the system employ identifiers in order to keep track of which terminals are requesting media)(col. 18, l. 59-67 & Fig. 20);

(b) after act (a), using the at least one aggregation module, aggregating a plurality of requests into a single request for a single copy of the real-time streaming media (col. 18, l. 50-67 & col. 19, l. 1-3) and sending the single request for a single copy of the

real-time streaming media to the wide area network (the examiner notes that a single unified request is issued to server 20 and the data N is transferred to server 10. The examiner interprets this to be a single request for a single copy of the media)(col. 19, l. 3-8 & Fig. 20);

(c) after act (b), buffering the single copy of the real-time streaming media at the at least one aggregation module (col. 18, l. 53-58 & col. 19, l. 8-14);

(d) using the buffered single copy of the real-time streaming media, delivering the streaming media to the plurality of receivers (col. 18, l. 1-9, 53-58); and

(e) changing the delivery of the streaming media from a first format to a multicast format (col. 18, l. 10-16; col. 22, l. 20-24, 30-34, 62-67; col. 23, 1-46; & Figs. 21, 24, 25).

Further referring to claims **11** and **25**, Suzuki discloses sending the single request for a single copy of the streaming media to the network through a proxy module in communication with the aggregation module (col. 19, l. 3-8). Suzuki also discloses delivering a stream of the buffered copy of the streaming media to a termination system (connection between the buffer and terminal) for transmission to each of the plurality of receivers (col. 18, l. 1-9 & Fig. 20), wherein each of the plurality of receivers receives substantially the same packets of the buffered copy of the streaming media (Suzuki discloses supplying data N to a plurality of terminals (col. 18, l. 50-67 & col. 19, l. 1-10).

Further referring to claim **38**, Suzuki discloses delivering the requested media in a format selected by the access module based upon changes to the first connection rate as media is delivered to two or more of the plurality of receivers (the examiner notes that if the media is stored in a buffer from a first user requesting the media, the data management unit 4 can decide

to retrieve it from the buffer for the second user if the access time is faster than from the multimedia data storage device)(col. 14, l. 56-67; col. 15, l. 11-53; & col. 18, l. 40-49).

NOTE with regard to claim **40**: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **2**, Suzuki discloses a method as recited in claim 1, wherein the at least one aggregation module is remote from at least one of the plurality of receivers (since the buffers are connected to the terminals, the terminals are remote from the multimedia server)(col. 18, l. 1-9, 53-58 & Fig. 20).

Referring to claims **6** and **45**, Suzuki discloses a method as recited in claims 1 and 38, respectively, further comprising delivering the streaming media to each of the plurality of receivers by a multicast broadcast (the examiner notes that each buffer may support a plurality of terminals)(col. 18, l. 53-58).

Referring to claim **12**, Suzuki discloses a method as recited in claim 11, wherein the network is selected from the group consisting of a wide area network (Fig. 20) and a local area network.

NOTE: The USPTO considers the applicant's "selected from the group consisting of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **21**, Suzuki discloses a method as recited in claim 11, wherein the request comprises at least one addressing mechanism for network resources (a terminal requests a data N)(col. 18, l. 64-67) and at least one identifier representative of a requesting receiver of the plurality of receivers delivering the request to the aggregation module (the examiner notes

that it is inherent that the system employ identifiers in order to keep track of which terminals are requesting media).

Referring to claim **43**, Suzuki discloses a system as recited in claim 38, wherein the aggregation module is configured to dynamically vary delivery of the requested media as either independent streams or as a multicast depending on traffic load on the network (the examiner notes that the data management unit 4 can dynamically change the source of obtaining data between buffers and the multimedia data storage device depending on access speeds, malfunctions, etc.)(col. 17, l. 29-50).

Referring to claim **49**, Suzuki discloses the method of claim 1, wherein changing the delivery of the streaming media from a first format to a multicast format is performed when streaming media reduces the connection performance by a defined percentage (the examiner notes that data will be taken out of the multimedia data storage device if it can provide a faster access speed than a buffer; however, as simultaneous accesses to the multimedia data storage device increase, its speed will reduce (it is inherent that each request reduce connection performance by a defined percentage). If the speed reduces below the access speed of a buffer, the data management unit will recognize that the buffer can provide the data faster and switch to providing data out of the buffer)(col. 15, l. 34-48 & col. 23, l. 23-32).

Referring to claim **50**, Suzuki discloses the method of claim 1, wherein changing the delivery of the streaming media from a first format to a multicast format is performed for receivers when a given number of the receivers request the same streaming media (the examiner notes that if a terminal requests data that is already stored in a buffer, and the buffer can provide

the data faster than the multimedia data storage device, the data management unit will switch to providing the data out of the buffer)(col. 15, l. 11-37, 49-53; col. 22, l. 62-67; & col. 23, l. 1-47).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **5**, **7**, **15-17**, **20**, **29**, **30**, **42**, and **48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Kuhn.

Referring to claims **5**, **7**, **15**, **20**, **29**, **30**, **42**, and **48**, Suzuki discloses a method/computer program product/system as recited in claims 1, 7, 11, 27, and 41. Suzuki does not specifically disclose selecting a media format. Kuhn discloses transcoding multimedia data into various media formats (i.e., MPEG)(Paragraphs. 1, 23, & 45). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Suzuki to include transcoding multimedia data into various media formats, such as that taught by Kuhn in order to allow a greater variety of receivers to use the system.

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **16**, the combination of Suzuki and Kuhn teaches a method as recited in claim 15, further comprising delivering separate instances of the streaming media to the plurality of receivers by the at least one aggregation module (Suzuki col. 9, l. 54-61).

Claim **17** is encompassed within the language of claim 1. Thus, it is analyzed and rejected as discussed therein.

3. Claims **8**, **9**, **46**, **47**, and **52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Imajima et al.

Referring to claims **8**, **9**, **46**, **47**, and **52**, Suzuki discloses a method/system as recited in claims 1 and 45. Suzuki does not specifically disclose the use of used and unused channels and identifying when to deliver a single copy of real-time streaming media to the plurality of receivers by at least one of the plurality of unused channels. Imajima et al. discloses a system for determining whether or not the broadcast of a video is to be provided in the full video on demand (FVOD) or near video on demand (NVOD) service, and if there is any available channel for the broadcast (Abstract). A busy state monitoring mechanism determines the busy level by checking if the number of videos being provided is equal to or larger than a threshold value n. If the busy level of the VOD server has exceeded a certain level, then the VOD server is in the busy state, the FVOD service is switched to the NVOD service and the requested video is broadcast in the NVOD service along an available channel (col. 14, l. 6-6-11 & col. 16, l. 30-40). When providing a video in the NVOD service, the NVOD service providing mechanism notifies the set top box (STB) at the subscriber of the NVOD service starting time and of the receiving channel for the video data (col. 15, l. 63-67 & col. 16, l. 1). The STB 220 sets the receiving channel to

the channel specified according to the channel information (col. 13, l. 10-13). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Suzuki to include utilizing multiple used and unused channels, identifying when to provide a requested video through the unused channels, and switching to the receiving channel for the video, such as that taught by Imajima et al. in order to provide a VOD service with easy operation and reduced load on the cable television (CATV) center (col. 4, l. 10-11, 17-20).

4. Claim **26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Durana et al.

Referring to claim **26**, Suzuki discloses a computer program product as recited in claim 25. Suzuki does not disclose program code means for generating each request from each of the plurality of receivers using an input device. Durana et al. discloses the use of such a remote control device (col. 4, l. 4-11). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Suzuki to include the use of a remote control device, such as that taught by Durana et al. in order to provide a more user-friendly system.

5. Claim **13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki.

Referring to claims **13**, Suzuki discloses a method as recited in claim 12. Suzuki does not disclose that the network is the Internet; however, the examiner takes Official Notice that, at the time of the invention, the use of an Internet-based communications networks was notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the system of Suzuki to include an Internet-based

communications network, such as that taught by the prior art in order to provide a more flexible communications platform.

6. Claims **18** and **19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Kuhn and further in view of Durana et al.

Referring to claim **18**, the combination of Suzuki and Kuhn teaches a method as recited in claim 15. The combination of Suzuki and Kuhn does not disclose that each of the plurality of receivers includes at least one channel for receiving programming and at least one unused channel in the associated system. Durana et al. discloses utilizing multiple used and unused channels (Abstract; col. 2, l. 5-13; & col. 7, l. 19-37). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Suzuki and Kuhn to include utilizing multiple used and unused channels, such as that taught by Durana et al. in order to provide greater transmission flexibility.

Referring to claim **19**, the combination of Suzuki, Kuhn, and Durana et al. teaches a method as recited in claim 18. Suzuki does not disclose that the system is a cable system, a television system, or a satellite system. Durana et al. discloses utilizing a cable television system (col. 4, l. 4-7). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Suzuki, Kuhn, and Durana et al. to include utilizing a cable television system, such as that taught by Durana et al. in order to take advantage of existing distribution networks.

7. Claims **22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of McClain et al.

Referring to claims **22-24**, Suzuki discloses a method as recited in claim 21. Suzuki does not specifically disclose comparing a rating associated with a URL against a stored list of ratings to determine whether content associated with the at least one URL is to be delivered to the requesting receiver, wherein the comparing occurs upon the proxy module delivering content retrieved from the network to the aggregate module. McClain et al. discloses comparing a rating code associated with a web page (i.e., URL) against a stored policy list (i.e., rating list) at a proxy module, in order to determine if the requesting receiver is authorized to receive said requested content (Abstract & col. 2, l. 17-35, 55-65). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Suzuki to include comparing a rating code associated with a web page against a stored policy list, such as that taught by McClain et al. in order to prevent unauthorized accessing of content.

8. Claim **51** is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Imajima et al. and further in view of Stoel et al.

Referring to claim **51**, the combination of Suzuki and Imajima et al. teaches the method of claim 9, wherein when providing a video in the NVOD service, the NVOD service providing mechanism notifies the set top box (STB) at the subscriber of the NVOD service starting time and of the receiving channel for the video data (col. 15, l. 63-67 & col. 16, l. 1). The STB 220 sets the receiving channel to the channel specified according to the channel information (col. 13, l. 10-13). The combination of Suzuki and Imajima et al. does not teach displaying a notice to a

user indicating the channel of the unused channel where the user can tune to access the real-time streaming media. Stoel et al. discloses displaying a channel number that a subscriber must tune to in order to receive a pay-per-view (PPV) or video on demand (VOD) event (col. 5, l. 7-26, 65-67 & col. 6, l. 1-36). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Suzuki and Imajima et al. to include displaying a channel number that a subscriber must tune to in order to receive a PPV or VOD event, such as that taught by Stoel et al. in order to allow a user to view a service when they want to (Stoel et al. col. 1, l. 14-16).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571-272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVH

SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER